

GENERIC · POWERTRAIN

P027C

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P027C

Fuel Pump Module B Control Circuit Low

P027C means the powertrain control module (PCM) has detected that the control circuit for fuel pump module B is drawing less current or showing a lower voltage than expected on the ground side. The PCM commands the pump module on, but the feedback on the circuit indicates a low-side problem such as an open, a short to ground, or excessive resistance.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Fuel and air metering (injector circuits)

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Engine cranks but fails to start or starts only after long cranking
- Engine stalls shortly after starting or during driving
- Reduced engine power or limp mode under load
- Intermittent no-start condition that may be temperature or vibration sensitive
- Audible fuel pump prime may be absent when the key is turned on

Common causes, most likely first

- 1 Open or high-resistance ground circuit between the fuel pump module and chassis ground
- 2 Faulty fuel pump module B (internal pump motor or control electronics drawing too little current)
- 3 Damaged or corroded wiring harness connector at the fuel pump module
- 4 Blown fuse or faulty relay in the fuel pump module B power feed circuit
- 5 PCM driver circuit fault or internal PCM issue on the low-side control
- 6 Poor chassis ground connection shared with the fuel pump module

How to diagnose and fix it

- 1 Verify battery voltage and inspect the fuel pump module B fuse and relay, replacing any blown fuse or faulty relay
- 2 Disconnect the fuel pump module connector and inspect terminals for corrosion, fretting, or pushed pins, repairing as needed
- 3 Measure resistance from the module ground terminal to chassis ground; repair any open or high-resistance ground circuit
- 4 Command the fuel pump on with a scan tool and measure voltage and current on the control circuit to compare against specification
- 5 Check for shorts to ground or opens in the control wire between the PCM and the fuel pump module, repairing the harness
- 6 Substitute a known-good fuel pump module or perform a current draw test on the pump to confirm the module is at fault
- 7 If all circuits test good, diagnose the PCM driver circuit and replace the PCM only after confirming the fault is internal

Low-side circuit faults that fool many technicians

- A low-current code on a fuel pump control circuit is frequently caused by a poor ground connection rather than a failed pump, so always load-test the ground circuit before condemning the module.
- Some vehicles use a pulse-width-modulated (PWM) fuel pump control module, and a low voltage reading can be a normal PWM signal misinterpreted by a cheap scan tool, so verify with a scope or manufacturer-specific data.
- A fuel pump module that is beginning to seize can draw less current intermittently when hot, setting P027C without a hard no-start, so perform a current ramp test while monitoring the live data.
- The PCM may set P027C as a companion code when the fuel pump relay is failing, so inspect the relay and its socket for heat damage before replacing the module.
- Aftermarket alarm or remote start installations that tap into the fuel pump circuit are a common source of unexpected low-voltage faults on this circuit.

Can I keep driving with P027C?

If the engine starts and runs normally, you can drive cautiously to a repair shop, but avoid hard acceleration and long trips because the pump may fail completely without warning. If the engine cranks but does not start or stalls while driving, do not continue driving; have the vehicle towed to prevent a dangerous stall in traffic.



Tools that help

- OBD-II scan tool with live data and bidirectional control
- Digital multimeter with min/max and current measuring capability
- Automotive test light or load tester
- Oscilloscope for PWM signal verification
- Fuel pressure gauge
- Wire terminal removal and repair kit

Reading P027C

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
2	Fuel and air metering (injector circuits).
7C	The exact fault within that area.

Often seen with

P0087 Fuel Rail/System Pressure - Too Low · **P0230** Fuel Pump Primary Circuit Malfunction · **P0231** Fuel Pump Secondary Circuit Low · **P0232** Fuel Pump Secondary Circuit High · **P027D** Fuel Pump Module B Control Circuit High

See it working

Watch the animated explainer [How a Refrigerator Works: The Cooling Cycle](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p027c/>

